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## **Central Iron County Water Conservancy District**

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December 27, 2011

Division of Water Rights – Southwestern Regional Office 585 North Main Street P.O. Box 506 Cedar City, Utah 84721-0506

Attention: Kent L. Jones, P.E., State Engineer

Subject: Beryl/Enterprise Area Draft Groundwater Management Plan.

The State Engineer faces difficult policy choices in developing a ground water management plan for the Beryl/Enterprise hydrologic basin which has been developed beyond available water resources. This situation is a dramatic illustration of how important water resources are in sustaining a region's economic activity.

It is the District's position that the ground water management plan should not impact the rail corridor contained within the Central Iron County Water Conservancy District's boundaries. However, the Draft Plan includes this important corridor.

It is our position that the table on page 2 summarizes the water cuts, summarized by water user type, proposed by the State Engineer's Draft Plan dated October 7, 2011. This table is based upon an analysis of underground water rights currently used by the District's taxpayers located within the Beryl/Enterprise area.

RECEIVED

JAN 0 6 2012 50 WATER RIGHTS SALT LAKE RECEIVED

DEC 3 © 2011 WATER RIGHTS CEDAR CITY

	Reduction - acre-feet diversions				ns	
Reduction #	Scheduled Date	Industrial	Ag.	Residential	Governmental	Totals
1	October 31, 2030	1,881.950	-	60,768	10.900	1,953.618
2	October 31, 2050	296.800				296.800
3	October 31, 2060	106.400	56.140	12.600		175.140
4	October 31, 2070	447.000				447.000
5	October 31, 2080					-
6	October 31, 2090			2.000		2.000
7	October 31, 2100					
8	October 31, 2110	10.900				10.900
Iron Co School	October 31, 2060				46,700	46,700
	Totals	2,743.050	56.140	75,368	57.600	10.700

The Central Iron County Water Conservancy District proposes that the following be incorporated into the State Engineer's *Beryl/Enterprise Area Draft Groundwater Management Plan* based upon the District's ability to assist its taxpayers:

- Treat the property located within the Central Iron County WCD boundaries as a separate hydrologic management area that has the option of organizing as a separate voluntary arrangement independent from the proposed Beryl/Enterprise Area ground water management district. Limit this area to the 5,000 to 10,000 acre-feet annually of Beryl/Enterprise groundwater withdrawals. This recommendation is based upon the enclosed Nolte Associates, Inc. (2007) Basin Area 71 Groundwater Study for the Iron Springs Area (Nolte Report). This Nolte report used the same USGS model that the State Engineer used to determine the safe yield in State Engineer's Beryl/Enterprise Area Draft Groundwater Management Plan and their report concludes "the estimated safe yield of the aquifer from the Iron Springs Area is between 5,000 and 10,000 acre-feet" annually.
- Allow for either monitored or estimated flows through the proposed West Side Flood channel which is engineered to exit the Cedar Valley Hydrologic basin through the Iron Springs Gap Area to bank flood water as credits that would accrue to the benefit of the water right holders within the Central Iron County WCD taxable jurisdiction to offset against scheduled reductions in the State Engineer's Draft Plan. An estimated 5,000 acre-feet of water annually is expected from this policy tool. This recommendation is based upon the enclosed Bowen and Collins (2008) West Side Drainage Master Plan (Drainage Report) which has been adopted by Cedar City, Iron County, and the Central Iron County WCD. The Central Iron County WCD recognizes that a conjunctive flood management plan will need to be presented to the State Engineer to secure the required permits prior to implementing this policy tool. The Central Iron County WCD estimates that the calculated evaporation loss from Quichapa Lake has ranged from 2093 acre-feet per year in 2009 to 7,227 acre-feet per year in 2005 and has averaged just over 5,000 acre-feet per year since 2005.
- Allow for the Central Iron County WCD to enter into an inter-local agreement with the Iron County School District (one of the Central Iron County WCD's water customers) as

part of the Draft Plan to participate in the West Side Flood channel ground water banking arrangement to prevent reduction of their water right number 71-2023 (priority 1950, scheduled to be reduced in cut #3, October 31, 2060).

• Allow for further ground water credits to offset scheduled reductions to Central Iron County WCD taxpayers and the Iron County School District that would be covered under an inter-local agreement. The source of these groundwater credits would be from quantifiable outflows from the Cedar Valley Hydrologic Basin through the Mud Springs Gap Area as identified in the USGS (2005) Hydrology and Simulation of Ground-Water Flow in Cedar Valley, Iron County, Utah which shows a downward water gradient from the Cedar City Regional Waste Water Treatment Plant Area out toward the Mud Springs Gap that adjoins the Beryl/Enterprise Water Basin. Recent field investigations at the Mud Springs Gap Area revealed that water levels measured in wells are about 10 feet below the surface.

Sincerely,

R. Scott Wilson, General Manager

## References

Bowen and Collins (2008) West Side Drainage Master Plan

Nolte Associates, Inc. (2007) Basin Area 71 Groundwater Study for the Iron Springs Area

USGS. (2005). Hydrology and Simulation of Ground-Water Flow in Cedar Valley, Iron County, Utah. By Lynette E. Brooks and James L. Mason.